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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,655	09/25/2003	John Dunklee	KLR:1016.0085	8221

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EXAMINER	
CHAN, EMILY Y	
ART UNIT	PAPER NUMBER
2829	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/672,655	DUNKLEE ET AL.	
	Examiner	Art Unit	
	Emily Y. Chan	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/1/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 6 and 8 are rejected under 35 U.S.C. 102(b) or 102 (a) as being anticipated by applicants' admitted prior art (APA) on figs. 1-2.

Regarding to claim 1, the applicants' admitted prior art (APA) on Figs. 1-2 discloses a probe assembly for probing an electrical device, said probe assembly comprising:

(a) a chuck (20) having a first conductive member (top stage of the chuck 20) with a surface (top layer of the top stage of the chuck 20) suitable for supporting an electrical device (18); and

(b) a second conductive member (16, 24) spaced apart from said chuck (20), wherein said surface (top layer of the top stage of the chuck 20) is capable of supporting the electrical device (18) at a location spaced between said first conductive member (top stage of the chuck 20) and said second conductive member (24), wherein the surface (top layer of the top stage of the chuck 20) is **electrically interconnected** to the second conductive member (24) by electrical signal transmitting through the top stage to a middle stage to a transmission lines 22 and 26 and then to the second conductive member (24).

Regarding to claim 2, applicants' admitted prior art (Fig. 1) discloses that the second conductive member (16) is electrically interconnected to a test signal (see lines 15, page 3 of the specification) of the electrical device (18).

Regarding to claims 3, applicants' admitted prior art (Figs. 1-2) discloses that the first conductive member (top stage of the chuck 20) comprises a first plate (see page 2, line 4 " metal plate") and the second conductive member (24) comprises a second plate, wherein the second conductive member is spaced further distant from the electrical device (18) than the first conductive member (top stage of the chuck 20).

Regarding to claim 4, applicants' admitted prior art (Figs. 1) discloses that the second conductive member (24) comprises a plate (suspended plate) and is vertically spaced apart from the first conductive member (top stage of the chuck 20).

Regarding to claim 6, applicants' admitted prior art (Fig. 1) discloses that the second conductive member (24) is free from being supported by the chuck 20.

Regarding to claim 8, applicants' admitted prior art (Fig. 1) discloses that the first conductive member (top stage of the chuck 20) and its second conductive member (16, 24) are electrically interconnected to a first probe (14).

Claim Rejections - 35 USC § 103

2. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' admitted prior art (APA) as applied to claim 1 above, and further in view of Yassine ('997).

Regarding to claim 5, applicants' admitted prior art (Fig. 1) does not disclose that the second conductive member (24) is electrically interconnected to the surface (top layer of the top stage of the chuck 20) completely within an environmental chamber.

However, Yassine ('997) disclose a wafer shielding chamber for probe station (see Fig. 3) and exclusively teach that a second conductive member (60) is electrically interconnected to a first conductive member (upper surface 56 of the chuck 30) completely within an environmental chamber (a small volume chamber 68) (see Col. 6, lines 30-32 and 45-48). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the feature of having the first and second conductive members within an environmental chamber as taught by Yassine ('997) into applicants' admitted prior art (Figs. 1-2) for the expected benefit of eliminating air currents so that more accurate noise measurements may be taken for reliability testing as disclosed Yassine ('997) (see Col. 1, lines 11-12).

Regarding to claim 10, applicants' admitted prior art (Fig. 1) does not disclose that a detachable substantial closed loop member engageable with the first conductive member and the second conductive member.

Yassine ('997) disclose a wafer shielding chamber for probe station and exclusively teach a detachable substantial closed loop member (a free-floating lid 60) engageable with the first conductive member (upper surface 64 of a space ring) and the second conductive member (lower surface 66 of the lid 60) (see abstract, lines 7-10), wherein the loop member (60) includes a flexible member (anti-friction such as Teflon)

interconnecting the first conductive member (64) and the second conductive member (66) (see Col. 7, lines 5-6).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the teaching of Yassine ('997) into applicants' admitted prior art (Figs. 1-2) for the expected benefit of minimizing air currents about the wafer and enhancing sliding movement between the first conductive member and the second conductive member (see abstract and Col. 7, lines 6-7).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admitted prior art (APA) Fig. 1 as applied to claim1 above, and further in view of Navratil et al ('861).

Applicants' admitted prior art (Fig. 1) do not disclose a first probe and a second probe.

Navratil et al ('861) disclose a probe station (see Fig. 7) and exclusively teach that a first conductive member (top layer of chuck 202) is electrically interconnected to a first probe (electrical probe 210) and a second conductive member (206) is electrically interconnected to a second probe (optical probe 216) (see page 3, paragraph 0029). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the second probe of Navratil et al ('861) into applicants' admitted prior art (Figs. 1-2) for the purpose of facilitating accurate alignment of electrical and optical probes in probe station assembly as disclosed by Navratil et al ('861) (see page 2, paragraph 0011).

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admitted prior art (APA) Fig. 1 as applied to claim1 above, and further in view of Streib et al ('383).

Applicants' admitted prior art (Figs. 1-2) discloses the first conductive member (top stage of the chuck 20) is electrically interconnected to a first probe (14) which is electrically interconnected to test instrumentation using a conductive element (test path 12). Applicants' admitted prior art (Fig. 2) fails to specify the conductive element (test path 12) having a length, at least 50% of the length comprising a twisted pair of wires.

Streib et al ('383) disclose a probe station using multiple probes (see Fig. 1) and particularly teach that a conductive member (68) is electrically interconnected to a test instrumentation (48) and comprises a twisted pair of wires coaxial cables (66,67) (Col. 3, line 66). Since Streib et al ('383) do not specify that the conductive member (68) have length less than 50% of the length comprising the twisted pair of wires (66,67), Streib et al ('383) 's conductive member (68) meets the claimed feature having a length, at least 50% of the length comprising the twisted pair of wires.

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply coaxial cables for connecting the probe and test instrumentation as taught by Streib et al ('383) into applicants' admitted prior art (Figs.1-2) for the expected benefit of simplifying connection of guarding the probe holders and chucks supporting the silicon wafer as disclosed by Streib et al ('383) (see Col. 1, line 19-21).

Response to Arguments

6. Applicants' arguments filed on 6/24/05 for claim 1 have been fully considered but they are not persuasive. Applicants argued that (1) the prior art (Figs. 1-2) does not disclose the limitation that the surface of the first conductive member is **electrically interconnected** to the second conductive member and (2) even if Figs 1-2 disclose such feature, the examiner's rejection would nonetheless be inappropriate because there is no assertion that Figs 1 and 2 disclose prior art that was in existence more than one year prior to the effective date of the present application.

As to argument (1) above, the examiner disagrees with applicants' assertion and points out why the instant invention can be read on the prior art (Figs 1-2). In the specification, on page 2, under BACKGROUNG OF THE INVENTION, applicants recite that the top stage of the chuck comprises a solid, electrically conductive plate through which the test signal maybe routed, and that a middle stages of the chuck comprises a solid electrically conductive plate through which a guide signal may be routed. Applicants do not specify that the top stage and the middle stage are electrically isolated from each other in the body of the BACKGROUNG OF THE INVENTION. Therefore, an electrical signal in the prior art (Figs 1-2) can travel through the surface of the top stage of the chuck (20) to the middle stage of the chuck (20) to the transmission line 22 to the transmission 26 and than to the second conductive member 24 which meets the claimed feature that the surface of the first conductive member is **electrically interconnected** to the second conductive member. The examiner suggests that applicants need to specify that the surface of the first conductive member is physically

connected or attached to the second conductive member in order to distinguish from the prior art shown in Figs 1 and 2.

As to argument (2) above, now claims 1-4 and 6 and 8 are rejected under 35 U.S.C. 102(b) or 102 (a) as being anticipated by applicants' admitted prior art shown on figs. 1-2, since applicants fail to specify whether the prior art Figs 1 and 2 was existence less than one year.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Y. Chan whose telephone number is 571-272-1956. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EC
8-7-05

VINH NGUYEN
PRIMARY EXAMINER
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08/08/05